Abstract

Development of multimedia technology is growing rapidly. This resulted require greater data. Therefore, the compression technique is still a viable technique as a solution. Intraframe and interframe compression to provide input to the 3D DCT coefficients are smaller, which will do the quantization and entropy coding. 3D DCT involves surgery and can walk a little faster, the ideal method in changing the image of the spatial domain into the frequency domain, the image is concentrated in only a few DCT coefficients, and can perform full-motion video.

If the value of QP enlarged then the compression ratio will increase. In Badak video for QP (8,15,15) ratio is 96.37%, QP (10,15,15) ratio is 96.41%, and QP (12,15,15) ratio is 96.44%. This is because the video from resulted 3D DCT divided by greater Q_{step}. If the GOP enlarged compression ratio will also increase, this is because more frame P, more of bits that can be reduced and the compressed video will be smaller size. Value added of QP and the GOP also cause the value of the MSE decreases and PSNR values are unstable. This is caused by the error value decreases with increase in the value of QP and the GOP, and indicates that more data is compressed so the quality will decrease.

Keyword : video compression, intraframe compression, interframe compression, 3D DCT, QP, GOP